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EXAMINER

ALI, SYED J

ART UNIT PAPER NUMBER

2195

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/302,687

Applicant(s)

DIETZ ET AL.

Examiner

Syed J. Ali

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 9-11 is/are allowed.
6) ☒ Claim(s) 1-8 and 12-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

10

DETAILED ACTION

1. This office action is in response to the amendment filed April 4, 2005. Claims 1-17 are presented for examination.

2. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections - 35 USC § 103

3. **Claims 1-8 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ainsbury et al. (USPN 6,078,924) (hereinafter Ainsbury) in view of Cipelletti et al. (USPN 5,673,194) (hereinafter Cipelletti).**

4. As per claim 1, Ainsbury teaches the invention as claimed, including an event historian comprising:

a history executive element for receiving information from one or more input sources (col. 6 lines 40-49), and for automatically deriving relationships among portions of said information (col. 8 lines 1-5, 18-48);

a storage element coupled to said executive element for persistently storing said information and said derived relationships in response to requests from said history executive element (col. 7 lines 49-56); and

an event information retrieval element for retrieving said information in accordance with said derived relationships in response to requests from an application process (col. 8 lines 49-60).

Art Unit: 2195

5. Cipelletti teaches the invention as claimed, wherein the event historian is for batch processing (col. 1 lines 5-8), and the information received and analyzed is process event information from one or more input sources operating in physical elements of a process (col. 3 lines 28-35) and batch procedure event information that includes batch subprocedure event information from a batch control device (col. 3 lines 49-58; col. 4 lines 21-35), wherein the batch control device is separate from the physical elements of the process (col. 4 lines 43-52; col. 4 line 61 - col. 5 line 2), and the derived relationships are based on generated event messages (col. 2 lines 29-34).

6. Ainsbury generally teaches a method of collecting, storing, and analyzing data, as well as visually presenting the analysis of the data to a user in a meaningful way. Ainsbury discusses the benefits of collecting large volumes of data and performing in-depth analysis, without limiting the type of incoming data (col. 2 lines 59-60, "The entire information platform relies upon reliable, predictable access to data, regardless [of the] data source"). Therefore, any endeavor that seeks to perform meaningful analysis of complex data would be well served by implementing the information platform of Ainsbury. It would have been obvious to one of ordinary skill in the art that the batch production monitoring system of Cipelletti would greatly benefit from the data collection and analysis system of Ainsbury. Cipelletti discusses the need for a data-collection system that can identify problems in a batch processing system, while collecting data relating to each and every step of the production process. Cipelletti thus provides a method of data collection that would fit seamlessly into Ainsbury, providing a robust way of analyzing batch data in real-time to provide meaningful analysis of data with minimal user intervention.

7. As per claim 2, Ainsbury teaches the invention as claimed, including the event historian of claim 1 further comprising a continuous data collection element for gathering continuous data in real time wherein said continuous data relates to at least one procedural element of a batch process (col. 6 lines 40-49). Cipelletti also teaches this feature (col. 2 lines 45-62).

8. As per claims 3-4, Ainsbury teaches the invention as claimed, including the event historian of claim 2 wherein said informational retrieval element further comprises a batch historian view client application for graphically presenting to a user said batch procedure event information and said relationships and said continuous data (col. 10 lines 23-49).

9. As per claims 5-6, Cipelletti teaches the invention as claimed, including the event historian of claim 1 further comprising a continuous data collection element for gathering continuous data in real time wherein said continuous data relates to at least one procedural element of a batch process (col. 2 lines 45-62);

a batch event generator coupled to said history executive element as a first input source wherein said batch event generator generates events indicative of execution of procedural elements of a batch process (col. 4 lines 21-35; col. 5 lines 19-23); and

a process event generator comprising an event log coupled to said history executive element as a second input source (col. 5 lines 31-40) wherein said process event generator generates events indicative of procedural elements performed within equipment used in the control of said batch process (col. 4 lines 21-35; col. 5 lines 19-23; col. 6 lines 5-12).

10. As per claim 7, Ainsbury teaches the invention as claimed, including the event historian of claim 6 wherein said history executive element includes a history correlation element for relating said batch events and said process events and said continuous data (col. 8 lines 1-5, 18-48).

11. As per claim 8, Ainsbury teaches the invention as claimed, including in a processing system, a history view client application comprising:

means for retrieving event information (col. 8 line 49 - col. 9 line 41); and

means for visually presenting to a user said event information (col. 10 lines 23-49) and automatically deriving relationships among portions of said event information (col. 8 lines 1-5, 18-48).

12. Cipelletti teaches the invention as claimed, wherein the view client application is for batch processing (col. 1 lines 5-8), and the information received and analyzed is process event information from one or more input sources operating in physical elements of a process (col. 3 lines 28-35) and batch procedure event information that includes batch subprocedure event information from a batch control device (col. 3 lines 49-58; col. 4 lines 21-35), wherein the displayed information corresponds to an identified batch (col. 3 lines 49-58; col. 6 lines 5-12).

13. As per claim 12, Ainsbury teaches the invention as claimed, including the view client of claim 8 further comprising means for retrieving other batch procedure event information corresponding to a second identified batch (col. 7 line 49 - col. 8 line 48); and

Art Unit: 2195

means for presenting to a user said other batch procedure event information and relationships among portions of said other batch procedure event information wherein said means for presenting said other batch procedure event information includes means for indicating differences between said batch procedure event information and said other batch procedure event information (col. 10 lines 31-49).

14. As per claim 13, neither Ainsbury nor Cipelletti specifically teaches said other batch procedure event information representing processing of a golden batch for comparison with other batches represented by said batch procedure event information. However, to include a “golden batch” would be an obvious modification, particularly in view of Cipelletti, where the goal of the invention is to identify problems in a production process by maintaining a full catalog of each step of the production. When an ideal batch is turned out, the standard is clearly set by which other batches are to live up to. To identify where the production deviated or where an error occurred, it would be obvious to compare the deficient batch with one that is known to conform to the desired standard.

15. As per claims 14-15 and 17, Cipelletti teaches the invention as claimed, including the view client of claim 12 wherein said means for visually presenting includes means for presenting said batch procedure event information and said relationships in real time as said batch procedure event information is generated (col. 2 lines 45-62).

16. Ainsbury teaches the view client having means for visually presenting data by scrolling event information horizontally across a user display screen (col. 10 lines 39-40).

Art Unit: 2195

17. As per claim 16, Cipelletti teaches the invention as claimed, including the view client of claim 14 further comprising continuous data collection means for gathering continuous data in real time wherein said continuous data relates to at least one data point of a batch process (col. 2 lines 45-62).

18. Ainsbury teaches said means for presenting said batch procedure event information in real time includes means for presenting said continuous data in real time as said continuous data is gathered (col. 10 lines 23-49).

Allowable Subject Matter

19. **Claims 9-11 are allowed.**

Response to Arguments

20. **Applicant's arguments with respect to claims 1-8 and 12-17 have been considered but are moot in view of the new grounds of rejection.**

Conclusion

21. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 2195

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (571) 272-3769. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai T An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Syed Ali
June 7, 2005



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